

positioning the apparatus such that the vessel surrounds the soft living tissue and such that the flexible mass is in operative contact with adjacent living tissue, the adjacent living tissue being adjacent the soft living tissue;

reducing pressure within the vessel to a pressure which causes the flexible mass to apply to the adjacent living tissue a contact pressure in excess of 20 mm Hg;

maintaining the contact pressure above 20 mm Hg for a time period  $T_1$ , the time period  $T_1$  being less than a time period  $T_2$ , the time period  $T_2$  being the minimum time period which will result in damage to the adjacent living tissue if the contact pressure is maintained for such minimum time period;

reducing the contact pressure upon expiration of the time period  $T_1$ .

[c22]

The method in accordance with claim 21 wherein the step of reducing the contact pressure upon expiration of the time period  $T_1$  comprises reducing the contact pressure a sufficient amount and for a sufficient duration to allow re-perfusion of the adjacent living tissue.

## Abstract of Disclosure

[0052] A dome for applying a vacuum to a patient's skin surface is comprised of a generally rigid dome capable of withstanding a pressure differential, with a rim cushion underlying the rim of the dome for supporting a rim from the patient's skin surface. The rim may be generally wider than the dome in order to distribute the attendant forces across a greater surface and avoid tissue damage. A sticky sole underlies the rim cushion and seals the rim cushion to the patient's skin to thereby preserve the vacuum within the dome. The sticky sole may be comprised of any adhesive material or even be achieved through the use of an appropriate material for the rim cushion itself.